AMENDMENT AND PRESENTATION OF CLAIMS

Please cancel claims 12, 23, 34, 46, and 58 without prejudice or disclaimer, and amend claims 1-2, 13, 24, 36-37, and 47-48 by way of replacement as follows.

1. (Currently Amended) A method of managing system capacity of a communication system, the method comprising:

receiving system capacity resource configuration data that reflect capacity requirements of a service provider;

receiving a predetermined profile of a terminal that is served by the communication system, the predetermined profile including service class information and rate information;

partitioning the system capacity based upon capacity requirements of a plurality of network service providers, a portion of the system capacity being designated as a shared capacity pool among the network service providers and another portion of the system capacity being dedicated to one of the network service providers;

generating a capacity plan based upon the partitioned system capacity, capacity resource configuration data and the predetermined profile; and

configuring a remote processor according to the capacity plan, the remote processor being configured to process bandwidth request messages from the terminal and to selectively allocate bandwidth to the terminal in response to the bandwidth request messages.

2. (Currently Amended) The method according to Claim 1, further comprising:

controlling admission of the terminal into the communication system based, in part, on the ~~ST~~ predetermined profile.

3. (Original) The method according to Claim 1, further comprising:

inputting the predetermined profile of the terminal by the service provider, the predetermined profile being based on a service level agreement.

4. (Original) The method according to Claim 3, wherein the system capacity resource configuration data in the step of receiving the system capacity resource configuration data is provided by the service provider through an operator interface.

5. (Original) The method according to Claim 4, wherein the predetermined profile in the step of receiving the system capacity resource configuration data specifies whether to permit the terminal to burst over a committed information rate (CIR).

6. (Original) The method according to Claim 4, wherein the step of receiving the system capacity resource configuration data is performed on an hourly basis.

7. (Original) The method according to Claim 1, wherein the system capacity includes uplink capacity and downlink capacity of a satellite.

8. (Original) The method according to Claim 7, wherein the uplink capacity is categorized according to that service classes include a scheduled class, an on-demand class, a high priority connectionless class, and a low priority connectionless class, the downlink capacity being categorized according to transmission services that include a broadcast service, a multicast service, and a point-to-point service.

9. (Original) The method according to Claim 8, wherein the system capacity resource configuration data in the step of receiving the system capacity resource configuration data include information relating to the service classes of the uplink capacity and to the transmission services of the downlink capacity.

10. (Original) The method according to Claim 7, wherein the communication system includes a satellite comprising a plurality of demodulators configured to receive signals from the terminal, the configuring step comprising:

transmitting configuration information that specifies demodulator assignment and demodulator carrier rate associated with the uplink capacity, the uplink capacity being partitioned as increments corresponding to the plurality of demodulators.

11. (Original) The method according to Claim 1, further comprising:

initially partitioning the system capacity according to at least one of a uniform distribution and a distribution based upon population density.

12. (Canceled)

13. (Currently Amended) A communication hub for managing system capacity of a communication system, comprising:

an operator interface configured to receive system capacity resource configuration data that reflect capacity requirements of a service provider, wherein the system capacity is partitioned based upon capacity requirements of a plurality of network service providers, a portion of the system capacity being designated as a shared capacity pool among the network service providers and another portion of the system capacity being dedicated to one of the network service providers;

a service provider interface configured to receive a predetermined profile of a terminal that is served by the communication system; and

a computer system communicating with the operator interface and the service provider interface, the computer system configured to generate a capacity plan based upon the partitioned system capacity, the capacity resource configuration data and the predetermined profile that includes service class information and rate information,

wherein the computer system configures a remote processor according to the capacity plan, the remote processor being configured to process bandwidth request messages from the terminal and to selectively allocate bandwidth to the terminal in response to the bandwidth request messages.

14. (Original) The hub according to Claim 13, wherein the predetermined profile of the terminal is based upon a service level agreement between the service provider and an operator of the communication system.

15. (Original) The hub according to Claim 14, further comprising:

a database configured to store the predetermined profile and the system capacity resource configuration data corresponding to the service level agreement.

16. (Original) The hub according to Claim 15, wherein the system capacity resource configuration data are specified to occur on an hourly basis.

17. (Original) The hub according to Claim 15, wherein the predetermined profile specifies whether to permit the terminal to burst over a committed information rate (CIR).

18. (Original) The hub according to Claim 13, wherein the system capacity includes uplink capacity and downlink capacity of the satellite, the computer system managing the uplink capacity and the downlink capacity by controlling admission of the terminal.

19. (Original) The hub according to Claim 18, wherein the uplink capacity is categorized according to service classes that include a scheduled class, an on-demand class, a high priority connectionless class, and a low priority connectionless class, the downlink capacity being categorized according to transmission services that include a broadcast service, a multicast service, and a point-to-point service.

20. (Original) The hub according to Claim 19, further comprising:

a database configured to store system capacity resource configuration data that include information relating to the service classes of the uplink capacity and to the transmission services of the downlink capacity.

21. (Original) The hub according to Claim 18, wherein the satellite comprises a plurality of demodulators configured to receive signals from the terminal, the configuration information specifying demodulator assignment and demodulator carrier rate associated with the uplink capacity, the uplink capacity being partitioned as increments corresponding to the plurality of demodulators.

22. (Original) The hub according to Claim 13, wherein the system capacity is initially partitioned according to at least one of a uniform distribution and a distribution based upon population density.

23. (Canceled)

24. (Currently Amended) A satellite communications system for providing communication services to a region, comprising:

a terminal located within the region and configured to transmit and receive signals over a satellite having a payload that processes the signals, the terminal having a predetermined profile that includes service class information and rate information; and

a hub configured to receive system capacity resource configuration data that reflect capacity requirements of a service provider and to determine partitioning of system capacity over the region based upon the system capacity resource configuration data, wherein the system capacity is partitioned based upon capacity requirements of a plurality of network service providers, a portion of the system capacity being designated as a shared capacity pool among the network service providers and another portion of the system capacity being dedicated to one of the network service providers, the hub transmitting configuration information to the payload of the satellite according to the determined partitions, wherein the terminal is configured to transmit a bandwidth request message to the payload, the payload selectively allocating bandwidth in response to the request message based upon the configuration information.

25. (Original) The system according to Claim 24, wherein the predetermined profile of the terminal is specified by a network service provider according to a service level agreement.

26. (Original) The system according to Claim 24, further comprising:

a database resident within the hub and configured to store the predetermined profile, and the system capacity resource configuration data.

27. (Original) The system according to Claim 24, wherein the system capacity resource configuration data are specified to occur on an hourly basis.

28. (Original) The system according to Claim 24, wherein the predetermined profile specifies whether to permit the terminal to burst over a committed information rate (CIR).

29. (Original) The system according to Claim 24, wherein the system capacity includes uplink capacity and downlink capacity of the satellite, the hub being configured to manage the uplink capacity and the downlink capacity by controlling admission of the terminal.

30. (Original) The system according to Claim 29, wherein the uplink capacity is categorized according to service classes that include a scheduled class, an on-demand class, a high priority connectionless class, and a low priority connectionless class, the downlink capacity being categorized according to transmission services that include a broadcast service, a multicast service, and a point-to-point service.

31. (Original) The system according to Claim 30, further comprising:

a database resident within the hub and configured to store the system capacity resource configuration data that include information relating to the service classes of the uplink capacity and to the transmission services of the downlink capacity.

32. (Original) The system according to Claim 29, wherein the satellite comprises a plurality of demodulators configured to receive the signals from the terminal, the configuration information specifying demodulator assignment and demodulator carrier rate associated with the uplink capacity, the uplink capacity being partitioned as increments corresponding to the plurality of demodulators.

33. (Original) The system according to Claim 24, wherein the system capacity is initially partitioned according to at least one of a uniform distribution and a distribution based upon population density.

34. (Canceled)

35. (Original) The system according to Claim 24, wherein the hub comprises a provisioning interface that permits a network service provider to supply the predetermined profile to the hub.

36. (Currently Amended) A satellite communications system for providing communication services, the system comprising:

means for receiving system capacity resource configuration data that reflect capacity requirements of a service provider, wherein the system capacity is partitioned based upon capacity requirements of a plurality of network service providers, a portion of the system capacity being designated as a shared capacity pool among the network service providers and another portion of the system capacity being dedicated to one of the network service providers;

means for receiving a predetermined profile of a terminal that is served by the communication system, the predetermined profile including service class information and rate information;

means for generating a capacity plan based upon the capacity resource configuration data and the predetermined profile; and

means for configuring a remote processor according to the capacity plan, the remote processor being configured to process bandwidth request messages from the terminal and to selectively allocate bandwidth to the terminal in response to the bandwidth request messages.

37. (Currently Amended) The system according to Claim 36, further comprising:

means for controlling admission of the terminal into the communication system based, in part, on the ~~ST~~ predetermined profile.

38. (Original) The system according to Claim 36, further comprising:

means for inputting the predetermined profile of the terminal by the service provider, the predetermined profile being based on a service level agreement.

39. (Original) The system according to Claim 36, wherein the predetermined profile specifies whether to permit the terminal to burst over a committed information rate (CIR).

40. (Original) The system according to Claim 36, wherein the system capacity resource configuration data is specified to occur on an hourly basis.

41. (Original) The system according to Claim 36, wherein the system capacity includes uplink capacity and downlink capacity of a satellite.

42. (Original) The system according to Claim 41, wherein the uplink capacity is categorized according to service classes that include a scheduled class, an on-demand class, a high priority connectionless class, and a low priority connectionless class, the downlink capacity being categorized according to transmission services that include a broadcast service, a multicast service, and a point-to-point service.

43. (Original) The system according to Claim 42, wherein the system capacity resource configuration data include information relating to the service classes of the uplink capacity and to the transmission services of the downlink capacity.

44. (Original) The system according to Claim 41, wherein the communication system includes a satellite comprising a plurality of demodulators configured to receive signals from the terminal, the system further comprises:

means for transmitting configuration information that specifies demodulator assignment and demodulator carrier rate associated with the uplink capacity, the uplink capacity being partitioned as increments corresponding to the plurality of demodulators.

45. (Original) The system according to Claim 36, wherein the system capacity is initially partitioned according to at least one of a uniform distribution and a distribution based upon population density.

46. (Canceled)

47. (Currently Amended) A computer-readable medium carrying one or more sequences of one or more instructions for managing system capacity of a communication system, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

receiving system capacity resource configuration data that reflect capacity requirements of a service provider;

receiving a predetermined profile of a terminal that is served by the communication system, the predetermined profile including service class information and rate information;

partitioning the system capacity based upon capacity requirements of a plurality of network service providers, a portion of the system capacity being designated as a shared capacity pool among the network service providers and another portion of the system capacity being dedicated to one of the network service providers;

generating a capacity plan based upon the partitioned system capacity, the capacity resource configuration data and the predetermined profile; and

configuring a remote processor according to the capacity plan, the remote processor being configured to process bandwidth request messages from the terminal and to selectively allocate bandwidth to the terminal in response to the bandwidth request messages.

48. (Currently Amended) The computer readable medium according to Claim 47, further comprising computer-executable instructions for causing the one or more processors to perform the step of:

controlling admission of the terminal into the communication system based, in part, on the ~~ST~~ predetermined profile.

49. (Original) The computer readable medium according to Claim 47, further comprising computer-executable instructions for causing the one or more processors to perform the step of:

inputting the predetermined profile of the terminal by the service provider, the predetermined profile being based on a service level agreement.

50. (Original) The computer readable medium according to Claim 49, wherein the system capacity resource configuration data in the step of receiving the system capacity resource configuration data is provided by the service provider through an operator interface.

51. (Original) The computer readable medium according to Claim 50, wherein the predetermined profile in the step of receiving the system capacity resource configuration data specifies whether to permit the terminal to burst over a committed information rate (CIR).

52. (Original) The computer readable medium according to Claim 50, wherein the selectively receiving step is performed on an hourly basis.

53. (Original) The computer readable medium according to Claim 47, wherein the system capacity includes uplink capacity and downlink capacity of a satellite.

54. (Original) The computer readable medium according to Claim 53, wherein the uplink capacity is categorized according to service classes that include a scheduled class, an on-demand class, a high priority connectionless class, and a low priority connectionless class, the downlink capacity being categorized according to transmission services that include a broadcast service, a multicast service, and a point-to-point service.

55. (Original) The computer readable medium according to Claim 54, wherein the system capacity resource configuration data in the step of receiving the system capacity resource configuration data include information relating to the service classes of the uplink capacity and to the transmission services of the downlink capacity.

56. (Original) The computer readable medium according to Claim 53, wherein the communication system includes a satellite comprising a plurality of demodulators configured to receive signals from the terminal, the configuring step comprising:

transmitting configuration information that specifies demodulator assignment and demodulator carrier rate associated with the uplink capacity, the uplink capacity being partitioned as increments corresponding to the plurality of demodulators.

57. (Original) The computer readable medium according to Claim 47, further comprising computer-executable instructions for causing the one or more processors to perform the step of:

initially partitioning the system capacity according to at least one of a uniform distribution and a distribution based upon population density.

58. (Canceled)